

REMARKS

This responds to the Office Action mailed on September 14, 2005.

By this response to the Office Action, claims 1 and 36 were amended. No claims were canceled or added. As a result, claims 1-42 remain pending in this application. Reconsideration of this application is requested in view of the above amendments and the following remarks.

Drawing Objection

In the office action of September 14, 2005, the Examiner objected to the drawings since not all features were shown. Claim 36 has been amended to remove the nonsymmetrical recitation thereby obviating the need to amend the drawings.

Double Patenting Rejection

Claims 1-42 were provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-33 of co-pending Application No. 10/903,185 (884.C58US1). Applicant will consider filing a terminal disclaimer provided that the other application issues before this application issues. Applicant reserves the right to argue against the obviousness-type double patenting rejection and preserves all rights and arguments. In short, Applicant preserves all rights despite this indication of considering the filing of a terminal disclaimer should the provisional rejection become a real rejection. Applicant feels any action now would be premature in view of this provisional rejection.

§102 Rejection of the Claims

Rejection: Claims 1-2, 14-16, 36, and 38-39 were rejected under 35 USC § 102(e) as being anticipated by Gollan et al.

Response: Anticipation requires the disclosure in a single prior art reference of each element of the claim under consideration. *In re Dillon* 919 F.2d 688, 16 USPQ 2d 1897, 1908

(Fed. Cir. 1990) (en banc), cert. denied, 500 U.S. 904 (1991). It is not enough, however, that the prior art reference discloses all the claimed elements in isolation. Rather, “[a]nticipation requires the presence in a single prior reference disclosure of each and every element of the claimed invention, *arranged as in the claim.*” *Lindemann Maschinenfabrik GmbH v. American Hoist & Derrick Co.*, 730 F.2d 1452, 221 USPQ 481, 485 (Fed. Cir. 1984) (citing *Connell v. Sears, Roebuck & Co.*, 722 F.2d 1542, 220 USPQ 193 (Fed. Cir. 1983)) (emphasis added).

Claim 1 recites “... a substrate of semiconductor material; and a plurality of micropins thermally coupled to the substrate, the plurality of micropins arranged in a pixel like pattern over the substrate, the micropins positioned to cause a fluid passing through the plurality of micropins to travel a nonstraight path.” The Gollan et al. (US Patent Application Publication 2003/0136547 A1) reference cited by the Examiner does not include a substrate of semiconductor material. The Gollan et al. (US Patent Application Publication 2003/0136547 A1) reference only discloses forming the projections using a galvanic reaction. A galvanic reaction formed on a metal substrate rather than on a substrate of semiconductor material. As a result, claim 1, as now amended, is not anticipated by the Gollan et al. (US Patent Application Publication 2003/0136547 A1) reference. Accordingly, the rejection of claim 1 under 35 USC § 102(e) as being anticipated by Gollan et al. (US Patent Application Publication 2003/0136547 A1) is now overcome.

Claims 2, 14-16, 36, and 38-39 depend, directly or indirectly, from claim 1 and include its limitations by their dependency. As a result, the rejection of claims 2, 14-16, 36, and 38-39 under 35 USC § 102(e) as being anticipated by Gollan et al. (US Patent Application Publication 2003/0136547 A1) is now also overcome.

Conclusion

Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney ((612) 373-6977) to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

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1/12/06

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CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: MS Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 17th day of January, 2006.

Name

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